

U N E S C O

SOURCES



N° 42 - NOVEMBER 1992

THE FRAGILE WORLD OF ISLANDS

INDEPENDENT PRESS IN CENTRAL ASIA
STRUGGLING FOR LIFE

AFTER RIO, TORONTO
RESHAPING ENVIRONMENTAL EDUCATION

Readers, we have reserved this page for your comments, suggestions and criticisms. Consider it yours!

A SUCCINCT AND COMPELLING DOCUMENTATION

Barbara C. Timken
U.S. Committee, International Council on Monuments and Sites (ICOMOS)
Washington, D.C. USA

 We were pleased with your July-August 1992 issue focused on the World Heritage Convention. In 10 pages you have not only provided a very good explanation of the Convention and its work over the past 20 years, but you have also effectively highlighted the forces affecting World Heritage sites today. Your portrait of Jim ThorSELL gives a good sense of the human commitment behind the Convention.

US/ICOMOS has recently prepared a teaching unit about the World Heritage Convention for use with U.S. students between the ages of 12 and 14. The lesson plans, slides, and bibliographic materials are intended to introduce young people to the World Heritage List and to the problems endangering sites and to encourage teachers and students to think about their responsibility and possible roles in preserving this heritage. We are currently testing these materials with teachers to get their comments and suggestions.

It is our intention to incorporate the July-August issue of *Sources* with this project because it is such a succinct and compelling documentation of the World Heritage Convention.

A VIGOROUS PROTEST

John Armstrong
Ardsley, New York
U.S.A.

 I deeply resent and vigorously protest the title and cover illustration of the book presented on page 18 of your October issue ("Man and His Planet": showing a male figure martyrizing Earth with a jackhammer). There are obviously many many instances where women, too, share responsibility for degradation of the environment as they should share in its proper management.

IF BY SOME UNFORTUNATE STROKE OF FATE

Professor Nicolas Casia Sierra
Havana, Cuba

 In our opinion, *Sources* does an excellent job of informing its readers on UNESCO in general and about the development of education, science and culture around the world, in particular.

If by some unfortunate stroke of fate all of UNESCO's publications were to disappear and only the complete collection of *Sources* could be saved, it would be possible to reconstruct, thanks to your monthly, all that UNESCO has built since its foundation.



Many thanks for the compliment! Frankly, however, we have no other pretension than to cover current activities. Reporting on "history-in-the-making" is something else again. Fortunately, the Organization's "memory", in the form of monumental archives, provide the wherewithal to reconstruct UNESCO's history. - Ed.

SO FEW WOMEN

Janet Grosbait
UNESCO, Paris

 We hear a great deal about the need to include the female dimension in UNESCO's activities. One such activity is the publication of periodicals. Why, then, do the latter contain so few contributions from Women?

Corinne Belliard, a sociology student who recently spent some time as a trainee in the Co-ordinating Unit for Activities Relating to Women, turned her attention to the *Copyright Bulletin*, *Impact*, the *International Social Science Journal*, *Museum* and *Perspectives*. She found the following percentages of articles by women: 15%, 10%, 11%, 20% and 19% respectively, for the period 1960-1991. The scientific journal *Impact* scores the lowest figure. Could this reflect women's traditional

roles and spheres of interest in society? To the extent that women achieve any prominence at all, they are expected - are they not? - to be more concerned with culture, education, communication and social sciences than with the natural sciences. Few women have yet broken that mould.

Numbers of women authors in these publications show a rising curve from the 1960s to the late 1980s, coinciding perhaps with the Women's Movement. This is an encouraging sign; and the figures for the early 1990s suggest an upward trend. Nevertheless, the percentages are still regrettably small.

Women, we are sometimes told, have now attained equality with men. Women, we are also told, have a lot to say. So where are they? And should not this Organization be encouraging them to find a voice? Is *Sources* listening?



Your figures are indeed enlightening. However, in the case of *Sources* you may be unaware that the staff is composed essentially of women. In fact, except for one regular collaborator, the only man is the editor-in-chief.

This may in part explain why, on top of regular columns and news briefs (written exclusively by women), a count of signed articles published over the last six months, shows that about 40 per cent were written by women. This is not quite equality, but we're getting close. - Ed.

"REFOUNDING"

School construction, the restoration of monuments, the setting up of research laboratories, media development, these were the nec plus ultra of UNESCO action over the past decade. In short, the accent was on building capacities and providing means, rather than on intellectual cooperation: reflection and the circulation of ideas on the ends and nature of these means. Now, the Executive Board has given its seal to a new balance between the two types of action. The polarization of the East/West conflict between two extremes, ultra-liberalism and communism, sterilized dialogue in the international arena. The limits of the former and the disintegration of the latter, unbolted the door. Above all, these events ushered in an era of movement and contrast, favourable to new understanding but also the re-appearance of old conflicts, and always leading to new interrogations. These movements have had profound repercussions on the United Nations system which must now rethink its own mission and its own means for achieving it, globally as well as for each of its specialized agencies.

For UNESCO, whose identity has always been difficult to define, this is a time, in the words of its Director-General, Federico Mayor, to undertake a process of "refounding". A re-centring rooted in the Organization's mandate - its ethical mission and its function in promoting intellectual cooperation - will thus underlie UNESCO's action over the next biennium (1994-1995), as called for by the Executive Board. This focus has already led to the installation, alongside the Board, of an "ad hoc Forum of Reflection". Similarly, the work of two world commission, the World Commission on Culture and Development, presided by Javier Pérez de Cuéllar, and the International Commission on Education for the 21st century, presided by Jacques Delors, assume great importance, as does a new action programme to promote a "culture of peace."

This "refounding" - a long-term undertaking - must avoid two pitfalls: verbiage and waste. First of all, by keeping UNESCO's priorities firmly in view: that of giving substance to what often seem like distant dreams: peace, development, the environment, democracy. And secondly, by bringing about a happy marriage between intellectuals and decision-makers, traditionally seen as misfits. Obviously, to succeed in such an undertaking, "refounding" and innovation must go hand in hand.

René LEFORT

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In the Fiji archipelago.



We're in school.



Emergency education for children in Somalia.

Cover photo :
Mindanao,
Philippines
(Photo © Hoa Gai/
S. Valentin)

Editorial and Distribution Services : UNESCO
SOURCES, 7 place de Fontenay, 75352 Paris 07 SP. Tel. :
(1) 45 68 16 73, Fax : (1) 40 65 00 29.

This magazine is destined for use as an information source and is not an official UNESCO document. ISSN 1014-6989.

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UNESCO SOURCES No. 42 / NOVEMBER 1992

READER
FICHE

BOOKS

QUALITY BASIC EDUCATION: the development of competence

How do children learn and acquire competence? Why do some succeed and others fail? The author, Dr. Joan Freeman, President of the European Council for High Ability (ECHA) has examined the findings of recent research on the development of children's abilities and skilfully transformed them into practical suggestions and clear ideas for the use of parents and teachers,



as well as educational planners and decision-makers. Throughout the book, a major publication of UNESCO's International Bureau of Education (IBE) following the World Conference on Education for All (WCEFA, Jomtien, Thailand, 1990), special consideration is given to the education of highly able children, especially those who may not be recognized as such because of their circumstances.

"Study of the highly able is beneficial to all individuals, because it highlights their special ways of functioning, which can be learned by other children," writes Freeman who insists that "all children have abilities and the capacity to learn." "We have in the past seriously underestimated the human potential" she says, citing "The decoding and learning of language as a brilliant feat that is accomplished by everyone, including slow learners... Whatever abilities children are born with, if they can be helped to use them in the most effective way, both their

level of performance in life and their personal happiness are likely to be greatly improved."

● *Quality Basic Education: the development of competence*, by Joan Freeman, UNESCO/IBE "Educational Sciences" series 1992, 256 pp., 80 FF.

WORLD DIRECTORY OF HUMAN RIGHTS RESEARCH AND TRAINING INSTITUTIONS

Providing a wealth of detail on 350 institutions in 78 countries, the present directory is an enlarged version of the first edition, published in 1988.

It, in fact, reflects considerable improvements made since that time in the collection and dissemination of human rights information, notably including NGOs involved in human rights information activities in addition to research and training institutions. Contents of the Directory are based on replies obtained from a questionnaire and processed by the UNESCO DARE Data Bank in collaboration with the Division of Human Rights and Peace.

● *World Directory of Human Rights Research and Training Institutions*, 2nd Edition, UNESCO 1992, 290 pp., 125 FF.

PERIODICALS

IMPACT of Science on Society

Environment & Development This special issue (No. 166) presents a number of subjects addressed at the "Earth Summit" in Rio de Janeiro, Brazil, last June. Leading off with "Sustainable investment: the economic challenge", by Australian natural resource economist, Mike Young, articles take a scientific viewpoint to deal with tropical forest management, urban water management, the evolution of environmental change, oceans and climate, biological diversity and human resources, and climatic change and desertification.

THE UNESCO COURIER

The Challenge of Democracy "To quote the celebrated phrase which Jean-Paul Sartre used to describe Marxism, democracy has become the 'boundless horizon' of our time," write Bahgat Elnadi and Adel Rifaat in their editorial.

"But as the ideal of freedom spreads, it is meeting hitherto unknown obstacles and raising new questions. It arouses different expectations in different places. Some define it in essentially negative terms as the end of dictatorship. For others, it satisfies a hunger for individual emancipation and is synonymous with a democratic system whose contours have yet to be traced. For yet others, it is coming to mean the establishment of a specific set of legal and political institutions."

Articles, starting with "What is Democracy?" by French sociologist Alain Touraine, look at various aspects of the "challenge" in different parts of the world. Authors include such keen observers as Lebanese novelist Amin Maalouf, Brazilian sociologist Fernando Henrique Cardoso, now his country's Foreign Minister, Zaïre historian Elikia M'Bokolo, and South African writer André Brink. This issue (November) also contains an interview with Lebanese pianist Abdel Rahman El Bacha.

COPYRIGHT BULLETIN

International Conventions

This issue (1/1992) reviews ratifications, acceptances and accessions up to 1 March 1992 of international conventions on intellectual property adopted under the auspices of UNESCO: the Universal Copyright Convention and annexed Protocols, the International Convention for the Protection of Performers, Producers of Phonograms and Broadcasting Organizations (the so-called "Rome Convention"); the Convention for the Protection of Producers of Phonograms against Unauthorized Duplication of their Phonograms; the Convention relating to the Distribution of Programme-carrying Signals Transmitted by Satellite; and the Multilateral Convention for the Avoidance of Double Taxation of Copyright Royalties and Additional Protocol.

RECORDS

IRAQ

Iqa'at - Traditional Rhythmic Structures

Iqa'at (plural of iqa) means rhythms and denotes the execution of wazzn (rhythmic formulae) on several different types of drums, notably the tabliah (clay goblet drum). Good tabliah-players have a full command over the wazzn repertory in Arabic music. And highly talented players like the Iraqi musician, Sami Abdulhadi from Baghdad, do not limit themselves to accompanying singers only: they choose a sequence of different wazzn and, in solo improvisation or as part of collective improvisation realize a dynamic - and hypnotic - rhythmical form simply called iqa'at. Khammari, another rhythmic structure consisting of eight beats whose first, third,



sixth and seventh beats are accented, is illustrated here with a song performed by a solo singer and a male choir. Examples of Murabba, Abuziyyah and Marwal are also included on this recording which, however, begins with Maqam of which the Iraqi style (Mukhalef), with its extraordinary hand-clapping, is the noblest and most perfected form.

● *Iraq: Iqa'at - Traditional Rhythmic Structures. Traditional Musics of Today series*, UNESCO/Auvidia. Cassette 52 FF, Compact 109 FF.

Publications and periodicals are on sale at the UNESCO Bookshop, or by order from UNESCO Press, 7 place de Fontenay, 75352 Paris 07 SP, and in Member States through national distributors. Catalogue on request.

ARTHUR ASHE WINS FAIR PLAY TROPHY

It was not only to honour the great champion whose reputation for constant fair play is universally recognized".

By bestowing the International Pierre de Coubertin Fair Play Trophy on U.S. tennis star Arthur Ashe during October 15 ceremonies at Paris Headquarters, the UNESCO-supported International Committee for Fair Play, was also showering kudos on the man who "after finishing a brilliant career in sport, continues to embody the 'chivalrous' (Yes, Sir Arthur, the word in French is 'chevaleresque') spirit displayed on the court, through total civic commitment, placing his prestige in the service of teaching and social action to promote human dignity."

This was, however, after a massive heart attack and bypass surgery in 1979 forced him in 1980 at the age of 37 (Ashe was born in Richmond, Virginia, in 1943) to retire from competitive tennis.

Since then, and despite a second bypass operation in 1983, Ashe has pursued a variety of careers, all the while establishing junior tennis programmes in the inner cities, working against apartheid in South Africa or writing a three-volume history of the African-American athlete, a monumental endeavour entitled *Hard Road to Glory*.

Although unable to attend the ceremonies, Ashe was "honoured to be selected for the prize". "Fair Play is at the heart of everything I have ever done," he said "on and off the court. It is also something I hope I've been able to promote and nurture throughout the world."

Whether life has played fair with him is something else. Today, at 49, Ashe who contracted AIDS from a 1983 blood transfusion, is fighting another battle, armed with his usual strength in the face of adversity - and the Arthur Ashe Foundation for the Defeat of AIDS, aimed at raising \$5 million by November 1993 to fight the disease.

Truly, as *New York Newsday* recently headed: "Arthur Ashe is athletics ambassador to the real world."

First awarded in 1964 to foster the spirit of Pierre de Coubertin, founder of the modern Olympics, Fair Play Trophies also went this year to Hungarian fencing champion Robert Vegheli and the Racing Club de France rugby team.

Betty WERTNER

● "He understood before many others what the rise of Nazism in his country meant. In his East-West détente policies, he was again ahead of everyone else, and he also proved that in

politics the shortest road was not necessarily the straightest one." It was in these terms that Mrs Marie Bernard-Meunier, Chairperson of UNESCO's Executive Board, which met at

JAVIER PÉREZ DE CUÉLLAR VIRTUE - AND CIRCUMSTANCES

In appointing you President of the World Commission on Culture and Development, the Secretary-General of the United Nations, Mr Boutros-Ghali, and I are certain that we have made the best choice."

And UNESCO Director-General, Federico Mayor, went on



MR. PÉREZ DE CUÉLLAR
WELCOMED BY MR. MAYOR
(Photo UNESCO/Michel Claude)

to list the qualities of Mr Javier Perez de Cuellar who spoke to UNESCO's Executive Board on October 21 for the first time as President of the Commission: in the first place, of course, Secretary-General of the United Nations for 10 years, but before that one of his country's (Peru) most distinguished diplomats, a Professor of International Law, Chairman of the "Group of 77" ... this "man of culture and cultures...sustained by many different currents of thought" is today a member of the Academy of Moral and Political Sciences of the Institut de France.

"The virtue" with which I am credited, said Mr Pérez de Cuéllar "is of no avail without favourable circumstances - without 'Fortune' as the Italians of the

Renaissance used to say." Again today, he said "We have a historic opportunity" for "dogmas, certainties, and what I might term 'received policies' in the way one says 'received ideas', are being called into question".

We are even experiencing a "Copernican revolution in development. But it is a Copernican revolution in reverse, since it is humankind and its culture - its cultures - the Earth and nature that are now returning to their rightful place at the hub of the world system." Thus "development begins in culture" and "must lead to the cultural fulfilment of each and everyone."

The cultural dimension of development should therefore be at the core of the Commission's work. This theme "has never yet been subjected to methodical, global and coordinated study worldwide," said the new President. Composed of 12 members, eminent men and women from various disciplines and regions serving in a personal capacity, and its President, the Commission will not only contribute to international thinking on development, but will, first and foremost, "chart prospects and serve as a guide for action." In any case, this will be the purpose of the World Report on Culture and Development the Commission is required to submit at the end of 1995.

One year earlier, the International Commission on Education for the 21st Century will also conclude its work. It is headed by Jacques Delors, President of the Commission of European Communities, who is to address the Board, also for the first time in that capacity, on October 30.

René LEFORT

Headquarters from October 12 to 31, paid tribute to Willy Brandt, who had always been, she said, "a man ahead of his time." Chancellor of the Federal Republic of Germany from 1969

to 1974 and Nobel Peace laureat in 1971, he was elected President of the Socialist International in 1976, and occupied this position until his death on October 8 at the age of 79.

THE FRAGILE WORLD OF ISLANDS

Highly vulnerable microcosms, the world's islands exemplify the threats now facing the planet (see below). Natural phenomena, such as sea-level rise (pp. 15-16), can threaten their very existence, while upsets between the environmental and human components, such as mass tourism can provoke (p. 10), or the cultural upheavals caused by their isolation and subsequent quest for broader horizons (p. 11), create shock waves that elsewhere would be easily absorbed. A multidisciplinary approach to these problems is indispensable (p. 14), as is a strengthening of the links between island societies, which, for Caribbean artist, Rex Nettleford (p. 9) are real "cultural crossroads".

Islands are going through some unsettling times. Everything seems to be against them: serious ecological vulnerability, cultural dependency, difficult communications and over population, or depopulation. Can they overcome these handicaps and, if so, how? But first of all, what is an island and, depending on the definition, how many of them are there?

The criterion adopted by the Food and Agricultural Organization (FAO) is a land area of under 50,000 km² - which, for example, excludes Sicily. UNESCO's Man and the Biosphere Programme (MAB) is more restrictive: according to Michel Batisse, one of the founders of the programme, 10,000 km² is the cut-off point above which the continental effect prevails over the insular. Thus, Corsica would be included, but not Sardinia, Timor or New Caledonia.

Population is another possible criterion. The experts generally put at 500,000 inhabitants the critical human mass needed for a community to develop its own momentum. Most of the world's islands fall short of that number, and so the Commonwealth has set the threshold at one million. The FAO has followed suit, adding this criterion to its spatial definition.

A socio-cultural approach can also be taken. Anne Codaccioni of the Institut de Développement des Îles Méditerranéennes (Corsica), defines islands as places whose inhabitants feel a kinship with one another. "No islander is ever a complete stranger" to another islander. On this basis, some

specialists could classify Ireland (84,000 km²) as an island, but certainly not Great Britain.

No one has made the full count, but there are probably 30,000 small islands (under 200 km²) in the Pacific, several thousand in both the Indian Ocean and the Caribbean, and over 13,500 in Indonesia. Very few are inhabited.

COMMON PROBLEMS

Lastly, they are separated by many differences and not only by the immensity of the oceans: topographic differences, even though they are mostly located in the tropics; economic differences, with Hong Kong and tax havens such as the Cayman Islands at one end and those island-States for whom the sale of postage stamps to philatelists could be a major industry, at the other; and legal differences: islands-States, islands which belong to an archipelago and islands which are dependencies of a continental State. Nevertheless, according to Pier d'Ayala, UNESCO's "Mr. Island", "all have a number of features and hence some problems, in common."

First, they are "naturally" vulnerable. Fresh water is a valuable commodity, arable land is rare and fish stocks are dwindling, added to which islands are regularly battered by typhoons and cyclones.

The rising sea-level is another threat. Conscious of this danger, islanders, whose representatives spoke energetically at the Rio Summit, fear that they are being abandoned to their fate. Scientists, however,

have come forward to qualify these fears. "Twenty factors have been identified" which could either aggravate or moderate this rise and it is not known how they are likely to act in combination", observes Naresh Singh of the Caribbean Environmental Health Institute.

Their surface area (small by definition) sets a limit to their biodiversity. Living creatures are hypersensitive to the diseases and predators from the outside world. Entire populations have been decimated by exogenous epidemics, especially in the Pacific, and the rat, long the seafarers' companion, continues to pick off rare animals on the Galapagos Islands.

SPECIALIZATION OR DIVERSIFICATION

This same factor also limits the range of available resources and often hastens their depletion. Japan has injected billions of dollars into its 280 far-flung islands, but all to no avail: in 30 years their population has fallen from one million to 600,000.

With all these limitations, islands have no choice but to specialize in some activity that represents "a happy combination of external economic factors, local resources and, in some cases, geographic position", maintains Pier d'Ayala. Such specialization, however, also increases vulnerability: any prosperity that is engendered in this manner could evaporate in no time at all. Should phylloxera destroy the grape vines, the price of cane sugar or oil suddenly drop, the whole economy would collapse. Not to

mention the transformation of the environment that single cropping would bring about.

A final illustration of this fragility is mass tourism, which came to the aid of islands in the 1950s, but has not turned out to be the panacea expected. Growth in world tourism is levelling out, and more importantly, the phenomenon destabilizes island societies, bringing with it new problems.

For many islands, it has been an unexpected wind-fall. Samoa's income from tourism is 40 per cent higher than the sum total of its export revenue. Twenty years ago Jersey had 20,000 hotel beds; it now has half a million - for an island of 116 km² and 73,000 inhabitants - and is fast acquiring one of the highest counts of motor vehicles to the square mile in the world! Three hundred million dollars have been spent razing the mangroves of Denarau (Fiji), which form a very important natural protection for the coast, and building hotels, golf courses and marinas, which may very well remain empty. In Sri Lanka and the Maldives, coral is being quarried to manufacture cement, although coral growth elevates small islands, protecting them from the assaults of the sea.

The tourist trade can also become self-destructive unless the necessary precautions are taken. Crowded and dirty beaches lined with high-rise concrete blocks can in the end lose their attraction even for the "package tourist" (who can take a lot of punishment). A number of islands that have been disfigured in this way are being passed up, leaving local authorities and investors with gigantic projects on their hands, and equally gigantic debts.

The "package tourist" is dead; long live the "eco-tourist"? But this solution also has its drawbacks, because cultural or ecological tourism does not just mean viewing historical monuments, and the very success of "eco-tourism" could defeat its objective, which is to promote greater respect for sites.

This last example clearly illustrates the dependence of islands on the outside world, a fact which is always at the centre of their populations' concerns. Michel Batisse describes islands as "cocktails of different influences"; they are all more or less trapped in a "state of permanent contradiction between isolation from and dependence on the outside world". Dependence on resources - think of all those islands that have no energy resources or simply not enough

fresh water; dependence on people from the outside world - as in the case of tourism; dependence on foreign markets; and dependence on the States to which many of them are attached, their primary source of revenue often being public service salaries and pensions of all kinds. "Can beggars be choosers?" asks Isakala Paeniu, a journalist in "The Pacific Way" (South Pacific Social Sciences Association, Suva, 1980).

A GAME OF POKER

So there is dependence and vulnerability on the one hand, but on the other a high degree of receptiveness to the outside world and, as Pier d'Ayala points out, a willingness "to take risks and, as if in a game of poker, to bet what one has on the possibility of winning more".

This suggests a possible solution to islanders' problems: "a heightened resistance to unpleasant surprises of both domestic and external origin". In other words, they must embark on a "process of judicious diversification, bearing in mind

the delicate balance between opportunities and limitations". For example, a tourist industry which was both environment and user-friendly could be promoted, as long as other potential activities, such as agriculture or fishing were strengthened as well.

Of course, this is now a problem everywhere, but it is particularly noticeable in island systems. There, the close interrelationship between all aspects of life is more directly felt than on the continents. Culture, environment, population, economy... are all inextricably intertwined. Their pro-

blems, therefore, call for integrated and regional solutions, and alternatives such as sea water desalination, "lagooning" of rubbish, the development of salt-water industrial plant, solar energy and ocean thermal energy conversion. Lastly, one development expert maintains that "the principal problem of every island project is the human factor." The necessary experts are lacking.

In fact, until quite recently the major international organizations hardly paid any attention to islands at all. In 1920 the League of Nations refused to admit micro-States (most of which were islands) dismissing them contemptuously as "Lilliputian".

Only 10 years ago, when the United Nations Environment Programme launched its "Blue Plan" for the Mediterranean, "the islands were overlooked at first" as Michel Batisse admits, even though "18,000 of the 46,000 kms of Mediterranean coastline belong to islands".

Since that time, there has been a flurry of interest. Studies, meetings, projects and institutions have proliferated, and were given a spectacular push forward at the Rio Conference.

UNESCO can certainly claim to be a pioneer in this field, because for some 20 years now a major project devoted specifically to islands ecosystems has been included in its MAB Programme.

Last May, UNESCO convened in Sicily a conference of all the world's islands, under the aegis of a Council which was christened INSULA (International Scientific Council for Island Development). The 300 participants proposed the establishment of a data bank on islands, set up working groups and promised to meet again in 1994 in the Pacific. As Pier d'Ayala, who is also the founding father of INSULA, put it, "solidarity between islanders and those who consider island cultures to be part of the common heritage, is one of the keys to their sustainable development".

Jackie Wynter believes that islands have a chance if they can "turn their liabilities into assets". They have no choice but to pioneer a better form of development, one that is based on harmony between people and nature, the need for which was recognized at Rio. Islands must "become the ecological conscience of the world", as one environmental specialist, Professor John Bardach, urges in this issue.

Nicolas MICHAUX

"LET THE WINDS OF CHANGE COME"

For Jamaican artist and political thinker, Rex Nettleford, islanders have far broader horizons than their mainland counterparts.

Island societies offer a cultural cross-roads. You don't find the 'fortress mentality' that often exists in big metropolises. Islanders are more open to outside influences that are absorbed and regurgitated as something entirely new."

Essayist, editor, dancer, choreographer and educator, Rex Nettleford provides the perfect example of this "something new" - the fruit of 500 years of "cross-fertilization" of a myriad of peoples and cultures that have transited or settled the islands of the Caribbean.

Nettleford, "somewhere in his late 50s", describes himself as an "Afro-Saxon", which he explains is "a self-deprecatory way of saying we are not one or the other". Brought up in rural Jamaica, he has devoted his career to promoting cultural development and identity as an essential part of economic and political development in the Caribbean. "People will say that I have done many things, but these are all manifestations of a direction that I have always followed, that being empowerment of the 'people from below', as writer George Lamming puts it."

OF POLITICS AND ART

A former Rhodes scholar he has thus combined political philosophy and the arts over the years, becoming Professor of Continuing Studies at the University of the West Indies of which he is also Pro-Vice-Chancellor, and founding not only the Trade Union Education Institute of which he is still Director, but also the much acclaimed National Dance Theatre Company of Jamaica. His impressive list of directorships, memberships and consultancies also includes the positions of Cultural Advisor to the Jamaican government, ILO expert monitoring sanctions and other actions against apartheid, founding Governor of the Ottawa-based International Development Research Centre and member of UNESCO's Executive Board.

He has also authored several books on Caribbean culture and social change, in which he reveals the influence of the vast social movements of the 60s and 70s on his thinking. He admits his approach has not really mellowed since, but adds with smile

that "there is nothing more obscene than a wrinkled revolutionary".

Contrary to the belief that island societies are better able to preserve cultural identities because of their relative isolation, Nettleford is convinced that this very characteristic pushes islanders outwards in search of broader horizons, thus keeping



"ISLAND PEOPLES RECOGNIZE EACH OTHER. THEY ARE KINDRED SPIRITS" (Photo UNESCO/Michel Cloude).

cultural identity in a state of change and growth - something he sees as a strength rather than a sign of cultural fragility.

"Island peoples have an incredible interest in 'elsewhere', possibly the result of a need to escape a sense of physical confinement. Consequently they have an extraordinary capacity for change and adaptation."

Examples, he says, can be found right throughout the Caribbean. "If you look at music we have calypso, zouk and reggae, all of which have had strong seminal influences from other cultures but are now distinctly Caribbean. It's the same for religion with Jamaican Revivalism, Santeria, Pukkamanía - a form of ancestor worship with Congolese origins - Shango in Trinidad and in Haiti, Voodoo, which originates in the ancient African kingdom of Dahomey. And all this against a background of Christianity."

Another characteristic of these societies says the Jamaican professor, is tremendous creativity. "In this respect the modern Caribbean is more like the ancient Greece of Homer than modern Europe." The English speaking Caribbean, for example, has produced two Nobel laureates this century (Derek Walcott, Literature, and Sir Arthur Lewis, Economics), and writers like V.S. Naipaul, Wilson Harris, Kamau Brathwaite, Louise Bennett and George Lamming. The Francophone community includes such wordsmiths and thinkers as Aimé Césaire, Edouard Glissant and Frantz Fanon.

LIMITED SPACE OR OPPRESSION ?

"The list is impressive. I'm not sure though, whether this is the result of pressure caused by limited space, or a history of oppression."

"Whatever the answer, the result is that people have fallen back on what they have most control over - themselves."

These talents, he concedes, may also be influenced by a different notion of time that tends to prevail in island societies. "We don't, for example, spend three hours a day on a train commuting to and from work." But what if those three hours are used to watch imported television programmes?

"When we speak of cultural penetration, my attitude is let the winds of change come. Let's not use our energy to keep things out. The arts have grown enormously in Jamaica since the arrival of satellite television. The key is alternatives. If you have alternatives, such as good, home-grown, organic art, you can use technology in a very interesting way."

"Also, we are building our traditions now - traditions rooted in that process set in motion 500 years ago, and which has seen the 'creolisation' of the Americas. We have all changed and it is counter-productive to cling to old Europe or old Africa or even the Aztec civilizations. As the Jamaican poet-playwright Dennis Scott, declares in his poem Homecoming:

'It is time to plant feet in our earth. The heart's metronome insists on this arc of islands as home'."

Sue WILLIAMS

PARADISE LOST

Tourism is a boon for islands. But at what cost? The Mediterranean is a case in point.

Islands, at the strategic intersection of sea routes, have always exerted a strong attraction. In the 20th century they have become havens, places to which most of us, not only city dwellers, would like to escape.

The Mediterranean islands are set in one of the world's major tourist areas. Their appeal is based partly on the positive image of islands in general and partly on some of their specific characteristics: striking and varied scenery, a rich historical and cultural heritage and a pleasant, sunny climate making possible many outdoor activities.

Barely two million holidaymakers went to the Mediterranean islands in 1965, according to J.-P. Lozato-Giotart (*Méditerranée et Tourisme*, Masson, 1989). Now the figure is over 12 million, a 600 per cent increase in less than 30 years and much higher than the increase on the mainland.

For most of the islands which now depend on tourism for their livelihood, this rapid increase has had multiple consequences. Traditional occupations such as fishing and agriculture, for example, are now of only minor importance. The extension of fallow land or even desertification (as in some of the Aegean islands), have aggravated environmental risks like fire and diminished biological diversity.

MULTIPLIED TENFOLD

Tourism has generally helped maintain or increase population as in the Greek islands where it is particularly developed, but also subject to extreme seasonal variations. The population of islands like Mykonos, Rhodes and Corfu, is multiplied by 10 during the summer season. When tourist development is handled by local people, it can also provide considerable economic opportunities, especially in the building sector, and lead to overall improvement in services and living standards.

But tourism, which affects all Mediterranean coastlines to some degree, raises particular problems for islands, especially small ones.

The fragility of islands means that even minor changes can have a devastating effect on their ecosystems. Human activities can be particularly disruptive, with consequences difficult to control.

The tourist boom has led to new forms of human concentration, currently giving

primacy to coastal areas over the interior. In Sardinia over a third of the population lives in towns of over 50,000 people, and in Cyprus the population of Limassol has more than doubled in 15 years.

In Majorca, 45 per cent of the coastline has been built up. This urbanization, also notable on the Greek island of Rhodes, considerably alters the character of these sites and detracts from the image of islands and archipelagos in general.

In Corsica two cities house half the population. The mountains have been des-

erted: inland areas, more densely populated than the coast in the 19th century, now have only four inhabitants per square kilometre. The extent of these changes varies from one island to another, and not all of them have reached the same stage. All the same, islands which only a few years ago were hardly affected by tourism now see it as offering economic opportunities and a possible remedy for demographic decline.

Tourism also causes specific planning and environmental problems. This is the case notably for water supply, waste disposal, energy, transport and land use.

Sociological studies carried out under UNESCO's MAB programme on the islands of Skiathos and Skopelos show that island societies are often traumatized by exposure to foreign cultural attitudes. The traditional heritage of such small societies is not enriched by contact with tourists, but is reduced to a few elements of folklore. The inhabitants, young people in particular, may be shocked by the behaviour of tourists.

The past few years have seen a growing interest in protecting and maintaining is-

land sites. Some interesting work has been done in this area. Examples are the botanical conservatory at Porquerolles, the nature reserves at Ustica, Italy, and Medas, Spain, national and regional parks like that at Port Cros in France, and the biosphere reserves at Fango, Corsica. In Fango, outdoor activities, particularly birdwatching, are encouraged, and visitors are lodged in traditional housing, which can prevent the depopulation of rural areas. In Malta, there is an increased emphasis on the cultural heritage.

These measures indicate a new awareness of negative repercussions, not only on the environment, but also in the number of tourists. The example of the Balearics is proof that when an island attracts too many visitors, it begins to lose its attraction!

The future of islands, as defined under the "Blue Plan: Futures for the Mediterranean Basin", depends on new development choices aimed at higher quality and better control of tourism both in time and in space.

Compared to mainland coastal resorts, islands are relatively well preserved. Yet, they must reconcile tourism and nature, if they want to continue providing us with the stuff for dreams and the urge to travel.

Louis BRIGAND*
University of West Brittany
French MAB Committee

*Author of *"Les Iles en Méditerranée: enjeux et perspectives"* (Mediterranean Islands: stakes and prospects), 1991, UNEP/Regional Centre for the "Blue Plan".

CASTAWAY CULTURES ?

Isolated, scattered and impoverished, the Cape Verde Islands are struggling to establish some links with the outside world. But does their cultural identity help them to do this?

Cape Verde's basic handicaps are imposed by nature and history. Situated 500 kilometres off the coasts of Senegal and Mauritania, the Cape Verde archipelago (10 islands, of which 9 are inhabited, and 8 islets, 336,000 inhabitants and 4,033 kilometres) is a humble land inhabited by an unassuming people. Its physical isolation and its geographic dispersion are obstacles to its development, as is the poverty (per capita GDP - US\$740 in 1990) due to natural limitations - very little cultivable soil and hardly any rainfall - and to colonial neglect. Despite the early establishment (1866) of a secondary-level seminary and a secular high school, access to education was limited to an elite. This late start has been made up since independence (1975) thanks to various bilateral co-operation agreements, UNESCO assistance and, above all, government impetus.

The archipelago has very little natural wealth to exploit and even less to export. Its only resource, manpower, could be employed in the processing industries which were started with the establishment of a free zone (on the lines of Mauritius) but the combined effect of relatively low levels of skill and a minimum salary makes it difficult to compete with other countries of the Third World. The weak infrastructures and the lack of fresh water and locally-produced fresh foodstuffs keep potential investors in tourism at bay.

EMIGRATION = SALVATION

So Cape Verde remains isolated. Even the number of foreigners entering the country each year has declined to a bare 30,000 including a few tourists together with migrants returning home, whether for a brief visit or for good.

For over a century emigration has been the main road to salvation. There is a large Diaspora (450,000 émigrés and their descendants have settled in over 40 countries, but mainly in the USA). Their transfers of funds and goods - which represent about one seventh of GDP - are nudging the country into the modern world and providing very useful material support for family members who have stayed behind.

The peoples of the coast from Mauritania to Guinea who were deported by the

white colonists constitute the core population of the archipelago, which was a stop-over point on the slave route to the Americas. The European contingent was a hodge-podge of Portuguese, Spaniards, English, French and Jewish immigrants.



CAPE VERDE:
ISOLATED AND
POOR (Photo
Michel Lesourd).

While the population is not homogeneous, it has become highly cross-bred.

A language of communication between masters and slaves, Creole (Crioulo), gradually developed and has become the medium of music and poetry. It is in Crioulo that the Cape Verdean spirit is expressed - especially in the "mornas", melancholy poems lamenting the hardships of drought and hunger and parting from the loved ones who have left the islands. Creole is also the language used to celebrate the ardour of the Catholic faith and the socio-religious festivals of African origin.

Portuguese, the official language of Cape Verde, is the language of communication with Brazil and the other Portuguese-speaking countries of Africa, and Cape Verdean authors have made a substantial contribution to literature in that language. The Creole/Portuguese debate, which surfaced at independence, has now been settled. Despite the slight dialectal differences between one island and the other, the use of Creole seemed a good way of strengthening national solidarity.

Although it lies off the coast of Africa, Cape Verde is regarded on "the continent" as a far-flung outpost of Latin culture, bequeathed by five centuries of Portuguese presence. Since independence, it has sought to attach itself more firmly to Africa, where the majority of its inhabitants

have their roots, and, more particularly, to the continent's Portuguese-speaking community.

However, the cultural distance that separates it from neighbouring countries on the coast is still great: on the one hand

Roman catholicism and Creole, and on the other Islam and African languages.

This colonial heritage weighed even more heavily on the Cape Verdean elite who, turning their backs on the Dark Continent, kept their sights fixed on Lisbon, to the point that the intellectual fringe did not realize the archipelago was "black" until the 1960's. "You are the Portuguese of the tropics", they were told, in substance, only a few years ago - and to their great displeasure! - by the Brazilian sociologist Gilberto Freire. Be that as it may, this fixation on a very backward metropolitan country has, to say the least, obstructed technological progress. What is more, until two years ago, the régime's ideology - one of the components of cultural identity - inclined it towards "autarchic" development, focusing more inwards, on the islands themselves, than on what lay beyond the seas.

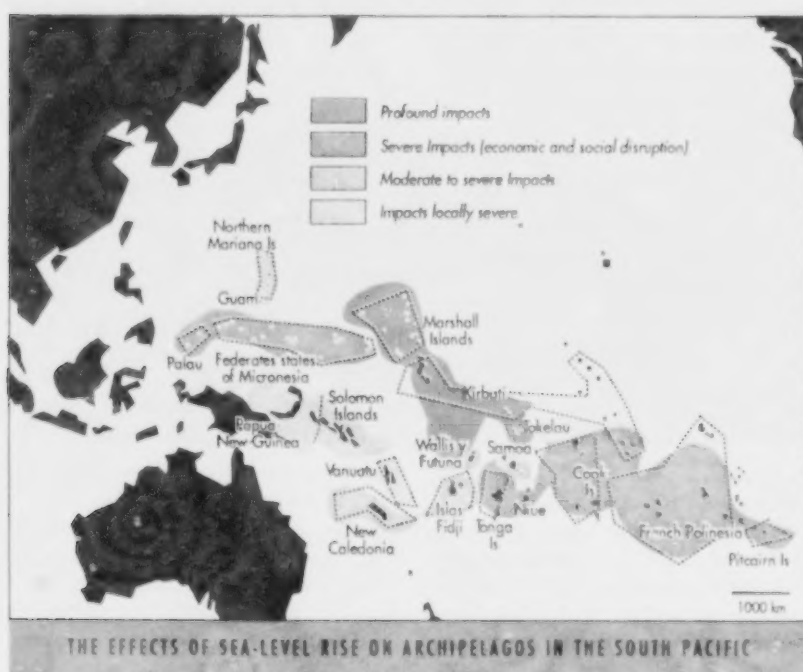
Cape Verde's need to cope with insularity and upgrade regional and national cultures should bring it closer to the other archipelagos of the central Atlantic which have similar problems. A dynamic new relationship has been established lately with the Canaries, Madeira and the Azores, which UNESCO's INSULA programme is helping to encourage.

Michel LESOURD
Rouen University (France)

VULNERABILITY OF ISLANDS :

Rising sea-levels, declining populations, disenchanted tourists, diminishing water supply: four illustrations of the fragility of islands, in four different regions.

SEA-LEVEL RISE IN THE SOUTH PACIFIC



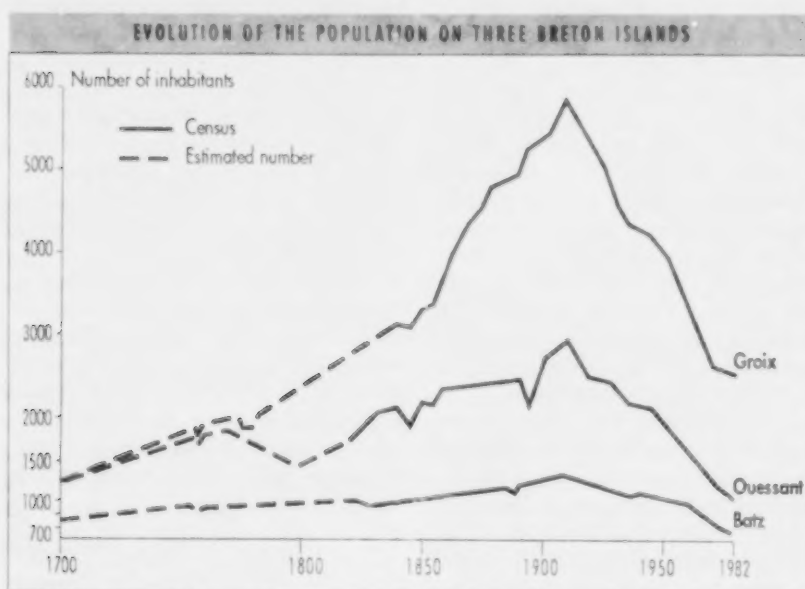
Current estimates - still marked by considerable uncertainty - indicate that sea-level will rise by between 40 cm and 110 cm by the end of the next century. To this prediction must be added, for the Pacific island region, traditional effects - very often catastrophic - of cyclones, tornados and sea-level fluctuations due to the El Niño phenomenon.

This map shows four degrees of impact on different Pacific island groups:

- Profound impacts: island States are likely to be completely submerged.
- Severe impacts: economical and social disruption leading to significant movements of population within the island States.
- Moderate to severe impacts;
- Impacts locally severe.

Source: Sustainable Development and Environmental Management of Small Islands, MAB Book series No 5, UNESCO/Parthenon Publishing 1990 and Environment and development: a Pacific Islands perspective, Asian Development Bank.

DEMOGRAPHIC EVOLUTION ON THREE BRETON ISLANDS



The populations of the Breton Islands, off northwest France, increased more or less regularly during the 18th and 19th centuries as did that of the European continent in general. However, the density became so high, and the pressure on agriculture and fishing so great that, about 100 years ago, the islands suffered a sharp drop in population: in two or three decades, the islands lost half to two-thirds of their inhabitants. For an area of 15.6 km², the population of the Island of Ouessant dropped from 2,500 inhabitants in 1911 to 1,255 in 1982; for the Island of Groix, with an area of 18 km², the figures are respectively 5,000 and 2,605; for the Island of Batz, 1,363 in 1911 and 745 in 1982. This graph illustrates the islands' sharp demographic growth and decline.

Source: Sustainable Development and Environmental Management of Small Islands, MAB Book series No 5, UNESCO/Parthenon Publishing 1990.

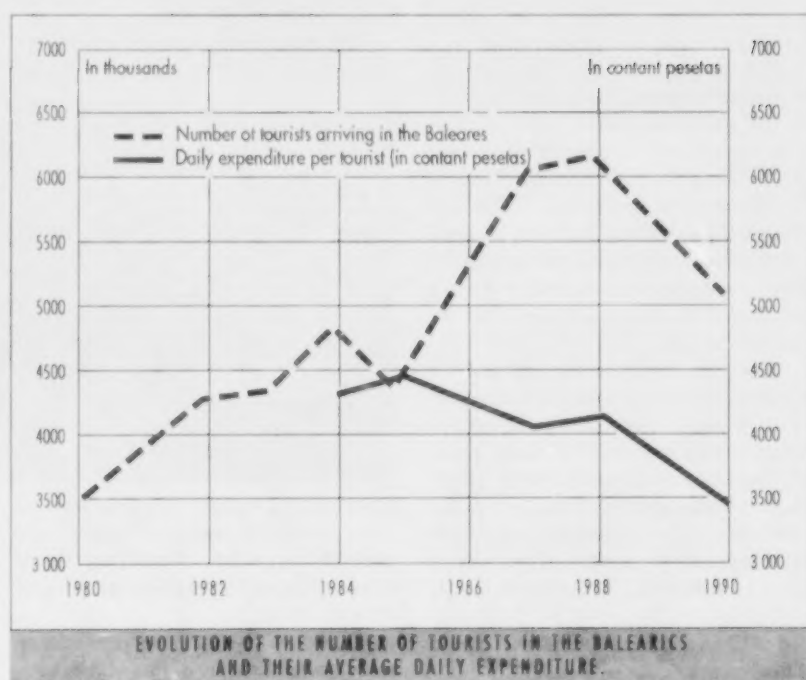
HUMAN AND NATURAL IMPACTS

THE TOURIST "BOOM": THE HARDER THEY FALL?

If you stretch the rope too far, it will snap.. This graph indicates the evolution in the number of tourists in the Balearic Islands (Spain) over the last decade. The general economic recession is, of course, partly responsible, but also the disenchantment of tourists because of massive degradation of sites. As evidence, in the Balearic archipelago, the decline is sharpest in the islands visited by the greatest number of tourists, as for instance, Majorca which consequently has suffered the most damage. On the other hand, Formentera, more protected, maintains its popularity.

If the number of tourists is combined with their average spendings in constant pesetas (the second curve), the drop in revenues is even more spectacular.

Source: *Les îles en Méditerranée*, by Louis Brigand, Fascicule No.5 of *Futures for the Mediterranean Basin: the Blue Plan*. UNEP/CAR-PB/Economica 1991.



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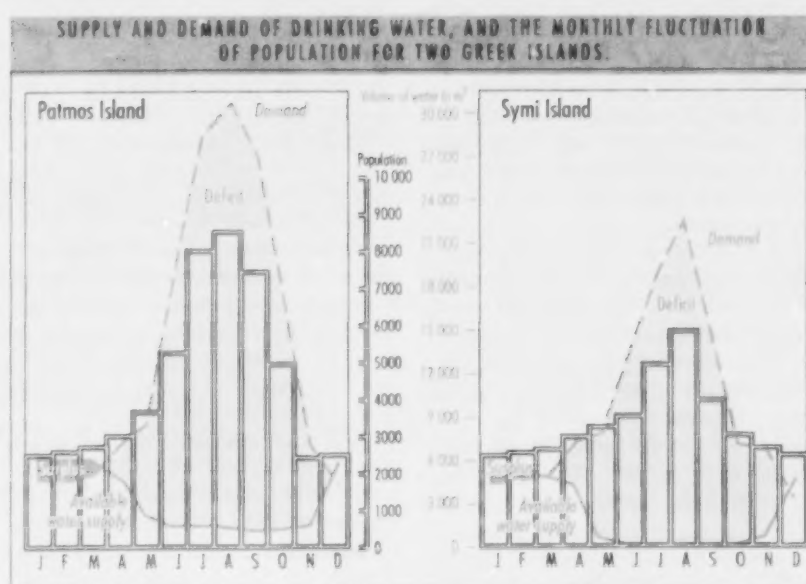
THE TOURIST FLUX AND WATER SHORTAGE

The problem of drinking water supply can be very acute in many small islands, and the flow of tourists, concentrated in one short season, can seriously aggravate the situation. This is the case in the Mediterranean where the heaviest tourist traffic coincides with the period of least rainfall. These graphs, referring to the Greek islands of Symi and Patmos, are cases in point.

Among solutions: desalinization is an effective, but costly, technique. Other possibilities: importing fresh water by cargo or pipeline, but at the price of heightened dependence; Hong-Kong, for example, imports 50% of its water from China.

Source: *Les îles en Méditerranée*, by Louis Brigand, Fascicule No. 5 of *Futures for the Mediterranean Basin: the Blue Plan*. UNEP/CAR-PB/Economica 1991.

Infography: A. Darmon.



CASH FLOWS BUT NO WATERFALLS

A MAB study in the Aeolians called for "integrated" solutions to closely-linked problems.

According to Homer, the Aeolian Islands - kingdom of Aeolus, god of the winds - were surrounded by walls of impenetrable bronze. This didn't prevent them from being the constant object of covetous rivalry due to a strategic position in the Tyrrhenian Sea in the central Mediterranean.

Over its rich history, the archipelago off the northern coast of Sicily (Italy) has developed problems, many of them common to the seven islands (Lipari, Salina, Stromboli, Vulcano, Panarea, Filicudi and Alicudi). This situation prompted UNESCO's Man and the Biosphere Programme (MAB) to launch a special study there as part of its major project area on island ecosystems, a built-in part of the programme since its inception in 1971.

As experts at a MAB meeting in 1973 explained, islands were included among its 14 major project areas because of the opportunity they provided "to study, under relatively controlled conditions, the whole range of ecological, economic and social factors that influence human relations with the biosphere." Research was also carried out in the early years on the Greek islands of Skiathos and Skopelos, the Maltese island of Gozo and the Tunisian archipelago of Kerkennah.

FRAGILE BALANCE

The Aeolian studies, paid for with Italian public funds, were carried out, notably, by specialists with the National Aeolian Project under the supervision of six Italian universities, using UNESCO guidelines.

The aim was to pinpoint constraints to sustainable development and create conditions favourable to long-term maintenance of the fragile balance upon which island systems depend.

After setting up a database, the specialists devised 12 models and three development plans (a plan for tourism, another for the local population and a "green" plan).

They stressed the importance of a regional solution to problems more or less present throughout the archipelago.

In particular, the islands have all experienced a tourist boom since the 1950s, associated with intense speculation in real estate.

The tourism plan, while reviewing ways for improving productivity of the sec-

tor through innovative technologies, emphasized one main factor: the beauty of the Aeolian Islands is their main tourist attraction. The conclusion was simple: if this beauty is damaged by uncontrolled building, tourism will decline.

The green plan stressed the need to curb the growth of tourism to safeguard the en-

On the positive side, a nature reserve has been set up on Salina, based on the same principle as the MAB biosphere reserves: coexistence of a core zone in which the flora and fauna are rigorously safeguarded and all building activity prohibited, with another zone, also protected, but in which agricultural activities can be pursued and



QUARRIES FOR
PUMICE-STONE,
THE MAIN
RESOURCE IN
LIPARI
(Photo UNESCO/
Claudio Breuil).

vironment. It proposed the re-introduction of native animal and plant species, and suggested ways for safeguarding natural resources as well as possible solutions to the water shortage.

Lastly, the plan for the local population sought to improve the quality of life, notably by developing key branches of the economy capable of providing lasting and satisfying employment to compensate for the fact that tourism is concentrated in a very short peak period extending from mid-July to mid-August.

The study and its conclusions gave rise to a number of publications in the early 1980s. But none of the scenarios depicted at the time corresponds to the present Aeolian situation.

The problem of water, for example, has not yet been resolved. The archipelago still depends on water tankers chartered by the State from private transporters. Since water is supplied free to the four communes, they have not tried out techniques like desalination, even though it has been under study since 1987 and funds are available.

Real estate speculation and tourism are running riot in Lipari and Vulcano, aggravating the problem of waste disposal and wastewater purification and tour operators foresee a drop in tourism of over 20 per cent in 1992.

houses restored. The reserve, which is also a source of jobs, was created in 1985 following a campaign waged by the Sicilian Committee for the Worldwide Fund for Nature (WWF). Intercommunal rivalry was so intense, however, that management of the reserve was entrusted to the province of Messina, in 1987. Nonetheless, a project to set up other land reserves and marine parks throughout the archipelago is also under study.

Despite these difficulties, Pier Giovanni d'Ayala who instigated the studies, has no sense of "failure". "MAB suggested lines of conduct, but responsibility for further action lies with local decision-makers," he says. "Besides, the work has given us information about islands that can be applied elsewhere. And the 'models' can always be useful for the Aeolians themselves".

Paradoxically the income these islands enjoy is among the highest in Italy? But, generated by tourism or by public financing (public works, services, etc.), it could well run out. Integrated planning is indispensable, but it cannot become reality unless it is understood and accepted by those who live and work in the archipelago.

**Meriem BOUAMRANE
INSULA**

THE ATLANTIS SYNDROME

If sea-level rises, will low-lying islands be submerged like the legendary continent? American scientist John Bardach assesses the dangers.

Questions are being asked about the extent of global warming and sea-level rise. There has been a great deal of controversy on this subject. One thing is certain: with a greenhouse effect, there is going to be a rise in the level of the oceans and islands had better be prepared for such a probable future event.

Warming of the earth's atmosphere is bound to lead to a rise in the average level of the oceans. The upper layer of water will undergo thermal expansion, and melting ice from cold regions will raise the level still higher. Ocean currents and prevailing winds would also be affected. These phenomena are foreseeable, if only because the measures taken to reduce global warming have come too late.

The consequences are predictable too: shore lines would recede, and beaches, coastlines and human habitation would be damaged, pollution would be a problem and salt water would infiltrate the fresh water of islands. This rise in the level of the oceans is expected to be at least 10 cm by the year 2050. Conservative estimates put it at 20, 33 or 46 cm if the temperature of the atmosphere increases by 1.5, 3 or 4.5 degrees over the next 50 years. Beyond that, any prediction would be hard to justify.

Nonetheless, we should beware of alarmist extrapolations. Disaster is not a foregone conclusion. Many other factors may influence the course of events, improving our chances or, on the contrary, making them worse.

The case of the Pacific Ocean is particularly instructive. Let us take as an

example the tragedy at Kailua, on Oahu, Hawaii, in 1988:

"On New Year's morning of 1988, a once-in-a-century downpour combined with an unusually high tide and a tangle of vegetation that impeded outflow from a swamp into a drainage canal caused water

tion of strong winds, an exceptionally high tide, heavy rain and human error.

Tectonic movements should also be taken into consideration. The bases of island foundations are not static: some have a tendency to rise, others to sink. Because of a tilt in the base of the Hawaiian islands,

to breach a 3.2-m level and flood the Coconut Grove subdivision in Kailua on Oahu, Hawaii. Water rose to a metre or more in 300-400 houses. The flooding problem was exacerbated by the shallowness of the water table and previous heavy rains, which had saturated the soil." (Honolulu Advertiser, 5 January 1988).

In this case, the damage was caused by a very moderate rise in the level of the ocean on a densely inhabited coastline in very specific circumstances: the conjunc-

tion of strong winds, an exceptionally high tide, heavy rain and human error.

sea level has risen more than twice as fast at Hilo as at Honolulu, even though the islands on which they are situated are very close together (3.8mm a year compared to 1.5mm). In the Pacific these stress levels vary greatly from one region to another.

In addition, the effect of the rise in the level of the oceans will obviously vary depending on the island's relief and the way they were formed. Some are volcanic, like Oahu, Tahiti and Fiji, some are low-lying atolls where agriculture is very restricted and the inhabitants very dependent on the sea for a living, such as islands in the Marshalls or Kiribati. Some, formed by corals, have elevations not exceeding 100m, the case for Niue, Toga and some of the Palau islands.

Bearing all these variables in mind, what are the predictable effects of sea-level rise on the world's largest island basin? First affected would be coral reefs which form a natural protective barrier. They are also favourite haunts of fish and therefore important for subsistence fishing. Coral is fragile and vulnerable to human activities and pollution, as well as to natural phenomena like storms.

SOUNDING THE ALERT

Perhaps no other country is as apprehensive about global warming as the Maldives in the Indian Ocean. And rightly so: the 1,196 islands which form the archipelago are on average only two or three metres above sea level. A quarter of its 218,000 inhabitants live on Malé, in an area barely two kilometres square, and the government is convinced that the Republic can be "wiped off the map" by sea-level rise. Before this can possibly happen, however, the inhabitants are menaced by others dangers, notably a water shortage and destructive cyclones. The international airport on Malé, for instance, was flooded in 1988, and mango trees are perishing because of sea water inclusion. For these reasons, the Maldives took the initiative for an Alliance of Small Island States (AOSIS) which in 1989 adopted the "Malé Declaration" proclaiming that "Sea-level rise threatens the very survival of some island-states" and pressing the international community to "take immediate and effective measures" to reduce "the greenhouse effect".

In theory, a slow rise in the level of the oceans should allow coral to develop, but the higher water temperature may also affect it. It is very sensitive to rises in temperature above 30°C, to which it reacts by expelling the algae that live in symbiosis with it, causing it to become bleached. If this warming becomes widespread and persistent, coral health would be impaired. On the other hand, coral rubble could also expand the extent of low islands.

Coastline vegetation and the water table are also likely to be affected, even if the sea-level rise is slight. We can also expect jetties and port installations in several places to deteriorate. We should immediately consider land-use management plans, taking out a sort of "insurance" on the future by gearing coastal construction to a theoretical rise of 30 to 50 cm.

The same caution should be observed in respect of energy conservation. The islands are heavily dependent on oil imports and storage facilities are already in a poor state of repair, if not worse (in the case of Samoa). Difficulties in the unloading and storage of oil might lead to shortages for which we should be preparing now. Work to restore existing infrastructures should take into account the dangers we have just described. In this respect, it is regrettable that States are showing so little interest in other, renewable forms of energy, especially wind, sun and biomass.

The islands should also take even greater care to preserve their vegetation. Mangrove swamps in particular ought to be protected, whereas in fact they are being raided for firewood and building materials.

SEA-LEVEL CHANGE

It is estimated that sea-level has risen on average between 10 and 20 cm in the last century, and an acceleration of the phenomenon is expected in coming decades because of global warming. "Islands are understandably worried," said Albert Tolkachev, Senior Assistant Secretary of the Intergovernmental Oceanographic Commission (IOC) of UNESCO, "This said, if the second conference on world climate in 1989 predicted a hypothetical rise of 65 cm between now and the end of the century, it also said this implied a margin of error of more or less 35 cm. That's a lot of water. The fact is we simply do not have sufficient data to make really reliable predictions." For this reason, the Commission in 1985 launched the Global Sea-Level Observing System (GLOSS) which now has about 300 stations in some 80 countries, many of them islands. "Still, even the link between global warming and the greenhouse effect is unclear," said David Pugh, UK Delegate to the IOC Executive Council. To delve even further, therefore, into ocean processes and climate, the IOC is participating in the World Ocean Circulation Experiment (WOCE), the largest oceanographic programme ever undertaken.

When they disappear, the coast will take the full brunt of the sea and winds. Many islands are "cutting off their noses to spite their faces" in this way, especially low-lying islands such as Tarawa, Kiribati, Guam and Samoa.

Mangrove swamps, which need a certain level of mud, have proved far more sensitive than coral to variations in the level of the sea. It has been suggested that a rise of only 12 cm a century could threaten their very existence. We should therefore encourage the planting of mangroves.

All these dangers have been discussed on the basis of recorded movements in the sea level and particularly variations due to the phenomenon known as El Niño⁽¹⁾. It was due to El Niño that at Rabaul, Papua New Guinea, and on the island of Truk, the level of the ocean dropped by about 20 cm

in 1983, and again in 1987, but rose by about 30 cm in 1984 and 1989. So, within a short space of time, changes in sea level occurred on the same scale as those expected over the next half-century.

This is not just a reason to beware of alarmist forecasts. It is also a reason to hope: measures can be implemented to counteract phenomena which can be partly understood. It is now up to the islands to lead the way and become the world's ecological conscience.

John BARDACH
East-West Centre, Hawaii

(1) Large-scale climatic phenomenon linked to cyclical warming of the ocean, which may account for storms or be responsible for drought.

TO FIND OUT MORE ...

Notable among publications on the theme:

ISLANDS 2000 - Abstracts of papers presented at the INSULA Conference (Sicily, May 19-24), 213 pp. (INSULA/UNESCO). The first issue of INSULA's quarterly *International Journal of Island Affairs* is also available from INSULA, c/o MAB.

SUSTAINABLE DEVELOPMENT & ENVIRONMENTAL MANAGEMENT OF SMALL ISLANDS - Thirty experts in the disciplines of economics, ecology, geography, anthropology and environmental sciences, draw upon the cultures of 19 countries in five ocean basins to examine the problems of

small islands. MAB Series No. 5, Edited by W. Beller, P. d'Ayala & P. Hein. UNESCO/Parthenon 1990, 419 pp.

ISLANDS' CULTURE & DEVELOPMENT - Experts and planners from three groups of island countries (Indian Ocean, Caribbean, Pacific) examine key areas and problems related to population growth, limited resources, market and communication, and highlight fields of action. UNESCO, Future-oriented studies, 1992, 245 pp.

SMALL TROPICAL ISLANDS: Water Resources of Paradises Lost - Examines some of the main hydrological and

water resource issues, such as where fresh water is located, how it can be assessed, how it is used and how it can be developed and managed. By A. Falkland, UNESCO/MAB/Humid Tropics Programme of the International Hydrological Programme (IHP), Series No. 2, 1992, 48 pp.

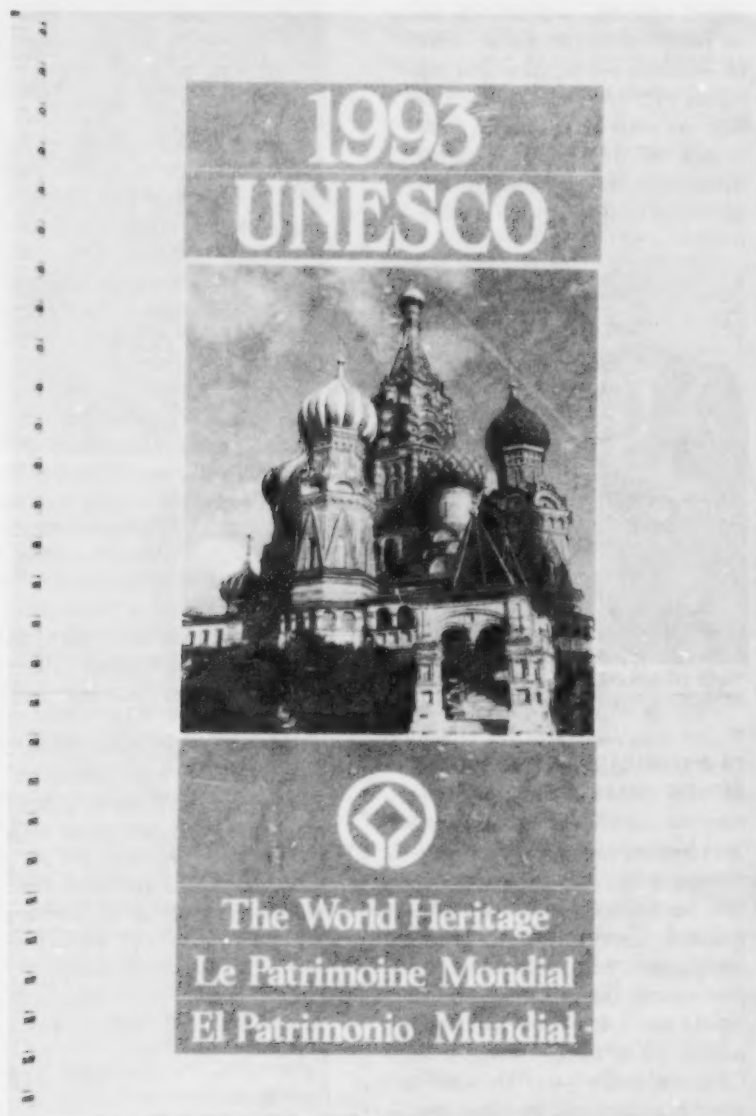
HYDROLOGY & WATER RESOURCES OF SMALL ISLANDS: A Practical Guide for technicians, hydrologists, engineers and managers, more complete than the precedent publication. Studies & reports in hydrology, No.49, a contribution to the IHP Humid Tropics Programme, UNESCO 1991, 435pp.

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STRUGGLING FOR LIFE

How to develop a free press in Central Asia? Kazakh journalist Leo Balayan gives his opinion.

Internationally renowned violinist Sir YEHUDI MENUHIN, 76, has been named Goodwill Ambassador to UNESCO. The honour was bestowed in recognition of his exceptional contribution over the years to the Organization's objectives. Armed only with his violin, this citizen of the world has fought for more than half a century for tolerance, mutual understanding between peoples and cultures and for the recognition of young talent.



YEHUDI MENUHIN AND DIRECTOR GENERAL FEDERICO MAYOR (Photo UNESCO/M. Claude).

TO DISSEMINATE BOTH THE SOUND AND THE IMAGE of traditional performing arts, UNESCO laid the groundwork for a new video collection at a meeting in Yogyakarta, Indonesia from September 21 to 26. TV producers and publishers from 15 countries participated and negotiated co-productions. The collection will include music and dance performed in their cultural context complete with traditional audiences. Priority will be given to endangered performances or to great artists who have no successors and have never been filmed. The collection will be inaugurated by a recording of an Indonesian performance of the Hindu dance epic, the Ramayana, to be co-produced by teams of TV stations from the developed and developing worlds.

UNESCO SOURCES

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An analysis of the public attitude towards mass media in Kazakhstan, Kyrgyzstan and Uzbekistan was distributed among the participants at the UNESCO seminar on promoting an independent and pluralistic Asian media held in Alma-Ata (Kazakhstan) from 5 to 9 October. Despite the high quality of this research and its reliable inferences, it failed to give me, however, a clear notion of the condition of journalism in ex-Soviet Central Asia and an idea of the specific difficulties faced by the writing fraternity in this part of the world.

"Free press, you say? What's that? We have nothing of the kind. Our mass media is under the complete control of the government", Ms. Jeren Taimova, Vice Editor-in-Chief of the evening newspaper *Vecherni Ashgabat* (Turkmenistan) told me.

Mr. Muhabbatsho Mazhatsho, Editor-in-Chief of the independent Tadjik newspaper *Jukhuriat* (Republic), plays Nostradamus, foretelling that by the end of 1992 only two newspapers will survive in Tajikistan - a communist paper and an Islamic one.

For Mr. Albert Musin, Editor of *Independant Weekly* from Uzbekistan "all the independent publications, if they express even a slightest doubt about the political course of the President and the government, are banned right away. The opposition press was forced to go underground. They hunt for me as if I were a beast. They even shake my parents, who live in Tajikistan, trying to convince them to make me surrender to the Uzbekistan authorities."

As to the problem of press freedom in Kazakhstan I will give only two examples. The first from a seminar participant, Ms Saltanat Alshagirova of Karaganda where she works as Editor-in-Chief of a weekly youth newspaper, *Friday*. No ill omen could be seen three years ago, when the newspaper was under the care of the regional Komsomol. As Saltanat sadly said, "We had a motto then: every Robinson must have his Friday. Now the situation has completely changed and our Friday needs the help of Robinsons. We'd like to become dependent again in order to survive, but nobody will take us. Official media get government subsidies and they have preferential taxation whereas independent media cannot even dream of such privileges".

An ardent partisan of the second greatest Utopia of our century, now under construction in the former Union and dubbed the "bazaar economy", may blame Saltanat herself for being in a situation where she earns only five dollars a month and the members of her editorial staff not more than \$ 2.50. An ardent partisan of the "bazaar economy" would say that if they can't run the paper properly, if they have no commercial vein, it serves them right. There may be something in it. But not everything. Because the "Declaration of Alma-Ata on promoting an independent and pluralistic Asian media" does not contain even the slightest hint that an independent media should make money. Our destination is not struggling for growth, but survival.

THE ALMA-ATA DECLARATION

The Alma-Ata Seminar (October 5-9) follows last year's forum in Windhoek, Namibia, aimed at the African press. The Windhoek meeting set the standards for an independent and pluralistic media and stressed its importance "to the development and maintenance of democracy in a nation and for economic development".

The Alma-Ata meeting's final declaration, based on that of Windhoek, calls for changes to outdated press laws, the abolition of monopolies in printing and newspaper industries, and the establishment, "as a matter of urgency", of resource centres in the Central Asian Republics for journalist training and information exchange. An International Freedom of Information Exchange (IFEX) Action Alert Network to protect journalists and press freedom was also proposed.

The declaration points out the need to identify economic barriers to the creation of independent media in the region, and to seek alternative methods of acquiring and distributing newsprint, providing printing facilities and organizing low-interest credits. UNESCO and other international agencies, professional organizations, donor countries and foundations, were asked to "contribute generously and cooperate" in the implementation of identified activities.



IF ONLY A FREE PRESS WAS AS EASY TO INTRODUCE AS CHEWING GUM ...! (Photo Caravan).

val. That is to say journalism is one thing and business is quite another.

Trying to realize what good will come out of the seminar which has taken place in a God-blessed country, but where people nonetheless suffer physically, morally and mentally because they do not live, but must struggle to survive, I can't help but be grateful to the organizers of this meeting as well as those idealists who came with the conviction it is possible to democratize our regimes.

Of course it would be naive and childish to think that even such a seminar, attended by 400 specialists from 53 countries, can solve all the problems of our regional media at once. But it gave the journalists of the world an invaluable chance to listen to the reports and take part in discussions of many interesting problems. It also gave them a chance to establish personal contacts, to make important agreements. And these interviews, I think, justify all the expenses run up for such meetings.

Some fine projects were discussed and accepted. Surely it is understood that not all of the projects will be carried out. But even if only one of them, let us say that of Grigory Breigin, Editor-in-Chief of *Caravan* weekly could be accomplished, that would be something.

Mr. Breigin is convinced that while the means of production remain in the hands of the state, a free press cannot exist. He says: "It will take only the Minister of Mass Communications to call the Direc-

tor of the biggest Kazakhstan Publishing House 'Daur', and our newspaper will die. They will stop printing it, and that's all. And the danger is real for us." Some time ago the *Kazakhstanskaya Pravda* newspaper published an interview with the Minister of Mass Communications Mr. Kuanysh Sultanov, who said: "We shan't allow the publishers of the *Caravan* weekly newspaper, that uses harmless advertisements as a cover, to become a political newspaper."

The *Caravan* Chief is convinced that if Western democracies are really interested in promoting our mass media, they should help to create independent printing centres, where any publisher can go, and for a normal price, have his newspaper printed.

Before flying to Bishkek to meet other Presidents of the CIS, the President of the Republic of Kazakhstan invited some of the seminar organisers to his residence. Among them were the President of International Federation of Newspaper Publishers, Prescott Low, and its Deputy General Secretary, Neal W. Swanscott and European Representative of World Press Freedom Committee, Ronald Coven. They asked President Nursultan Nazarbayev about the prospects for the development of a free press in Kazakhstan. The latter answered that one must not think that the transition from a dictatorship to a free life like that in Paris can be achieved within one night.

I agree, but how long will that night last, I wonder? ■

- ●
- **BORDOMER 92**, an international conference on coastal zones, was organized by the Regional Council of the Aquitaine Department and the Intergovernmental Oceanographic Commission (IOC) of UNESCO in Bordeaux (France) from September 30 to October 3.
- Over 250 participants from 36 countries discussed climate and sea level change, beach erosion, the environment of enclosed and semi-enclosed bodies of water, lagoons and seas such as the Mediterranean, the Baltic and the Black Sea, and the training of specialists. Finally, a resolution was passed for creation, with UNESCO, the Council of Europe and the EEC, of an open forum to coordinate activities of scientists, technicians, decision-makers, etc. aimed at sustainable management of coastal zones.

- ▼
- **THE HAGUE ACADEMY OF INTERNATIONAL LAW** has won the 1992 Felix Houphouët-Boigny Peace Prize. The jury's decision, announced at Headquarters on October 13, reflected its concern that "international law... be given a bigger place in the resolution of conflict" in a world no longer "of superpower conflict but of ethnic conflicts and guerilla war".
- The Academy works in favour of lawyers and diplomats in the third world, providing grants and study programmes for students and researchers. The Peace Prize, created by UNESCO's General Conference in 1989, is awarded to individuals, institutions or associations who have significantly contributed to the promotion, research, safeguarding or maintenance of peace, the defence of human rights and freedoms.

- ●
- **LITERACY STRATEGIES AND CULTURAL DEVELOPMENT** in Central Europe's rural regions was theme of a seminar in Bratislava (Czechoslovakia October 7-10) organized by the Hamburg-based UNESCO Institute for Education. Results will be presented in "Alpha 94", published jointly by the Institute and the Government of Quebec, and which is part of a much wider Institute study of literacy strategies in industrialized countries.

RESHAPING ECO-ED

All hope for achieving sustainable development lies in broadening and deepening environmental awareness

• A course in ENVIRONMENTAL GEOLOGY AND ENVIRONMENTAL CONTROL, organized by UNESCO's Regional Bureau for Science and Technology in Latin America and the Caribbean (ROSTLAC) has been attended by over 100 professionals since it was first given in 1990. In the region where mining has an outstanding importance the course aims at sensitizing geoscientists and other specialists about the importance of environmental protection and sustainability. First given in 1990 in San Jose (Costa Rica), then in Georgetown (Guyana) and Guatemala in 1991, and earlier this year in Buenos Aires (Argentina) and La Paz (Bolivia), the course is scheduled to be held in Montevideo (Uruguay) from December 7 to 16.

▼ "READING FOR ALL", a campaign launched this year by Egypt's First Lady, Suzanne Mubarak, aims at the establishment of community education centres throughout the country and the provision of sufficient, and interesting, reading materials. More than 16 million Egyptians are illiterate and in some provinces, large numbers of children never get a chance to go to school. To help kick off the campaign, UNESCO has sent a large quantity of publications, including text books and case studies of successful literacy campaigns in other parts of the world.

● PIRACY OF LITERARY, SCIENTIFIC AND ARTISTIC WORKS protected by copyright was the main subject of an International Seminar organized in Bucharest on October 1 and 2 by the Romanian Ministry of Culture and UNESCO. In East European countries in transition to democracy and a free market economy, piracy is blossoming, undermining the cultural industry and, in the long run, sapping creativity.

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• Three thousand people took the road from Rio Earth Summit to Toronto, from October 17 to 20 1992, H.G. Wells' famous "race between education and catastrophe" is still in full course.

• From backpackers to manufacturers, grass-root ecologists, husband and wife, to the great wheels of finance, education and international agencies, they sat or spoke at the plenary meetings, participated in the dozens of panels and wandered through the acres of displays.

• Environmentally-friendly products were everywhere: ecologists had found their

environmentally sound and socially equitable, namely, education.

• Since 1975 that approach has been jointly - and fairly successfully - taken by UNESCO with UNEP through the International Environmental Education Programme (IIEP). But at Toronto, during the opening session, UNESCO's Director General Federico Mayor soberingly - and inspiringly - ventured on self-criticism (which is always more stimulating than self-congratulation).

• IIEP has done much, EE "can take some of the credit for the new environmen-



LEARNING NATURE (AS HERE IN CAPE VERDE) FROM SCHOOL TO WORKPLACE (Photo UNESCO/Dominique Roger).

happy hunting grounds in Toronto's ECO-ED - The World Congress for Education and Communication on Environment and Development, the first global follow-up to the UN Conference on the Environment and Development (UNCED), the "Earth Summit" held last June in Rio de Janeiro, Brazil.

• The singing phrase was "sustainable development". And it was a rare occasion when the optimists (who called themselves "realists") seemed to equal in number the catastrophists (who also called themselves "realists"). But both agreed that hope was in stubborn hope and rational, informed action.

• A leading role of UNESCO, co-sponsor of ECO-ED with the International Chamber of Commerce and in cooperation with the UN Environment Programme (UNEP), was to point the way to a - perhaps the - keystone to sustainable development, en-

tal awareness expressed at Rio... But it is no longer deep or broad enough to meet present needs."

• This is where social equity - call this social justice - has stamped its way into environmental education as it has into sustainable development. To jump ahead to a panel on the subject of "Reshaping Education for Sustainable Development," one participant, a biologist, boldly criticized the "pure" (extremist) environmentalists as being more concerned about rain forests than rain people.

• Another was graphically blunt: "If you want to save the elephant, feed the starving people who live around him." And a third participant said: "There is nothing morally wrong with a mother in Somalia picking the last root of the last specimen of a plant to feed her child."

• To the final question at the EE panel, held under the auspices of UNESCO (two

days of two-hour sessions; not nearly enough for the about 350 people present): "What should be added to environmental education to make it more relevant to sustainable development?" came the answer: "Let in people".

We in EE have been saying we consider the environment in its totality - natural and built, economic, social, esthetic, even political. But in truth, as the panelists and participants indicated, the accent has been on the natural environment - and, to be just, rational use of resources. Social development, other than quality of life (an immense goal in itself), has been slighted.

Highlights of the changes to be made, so far as UNESCO's (and UNEP's) EE programme is concerned, occurred in the DG's speech and were echoed and reinforced in the panel.

Education itself "should be reoriented to sustainable development" and ramify all areas of social activity. "We are putting it at the center of all our studies," said a University of Madrid professor. "Reshaping education for sustainable development is to reshape our destiny", repeated participants after the DG. And that, said he, means "empowering the people," liberating them through literacy, knowledge and participation.

LEARN BY DOING

"A merely educated man," said one participant, quoting English philosopher Alfred North Whitehead, "is the most boring man in the world." The moral imperative is to use one's knowledge.

"Learn by doing," said one panelist. "Thinking, too, is action," replied another, "otherwise what are we doing here?"

"We must think like men of action," said a participant between sessions, "and

act like men of thought" - serenely resolving that, albeit with the words of Thomas Mann.

The new education for sustainable development, of which environmental education is an indispensable component - participants concurred - will involve all social actors in a new partnership, in turn involving a wide range of learning environments - from school to workplace and field - and communication channels.

"Any business institution," says a UNESCO brochure made available at ECO-ED, "should become a life-long educational centre. Education must prepare people for solving problems, not just for school" - and examinations.

An intense Canadian social worker warned about the new sophistication of even the very young. "They see," she said, "the hypocrisy of those who preach 'sustainable development' and practise otherwise. Take care."

A woman from the Philippines pointed out that her pupils participated in school-waste management as part of their learning process. "Adults," she added, "might take a lesson."

A "senior" panelist had his own warning. "Might not 'education for sustainable development' be no more than another fad, lasting five or at the most 10 years?"

Most thought - or at least hoped - not. All agreed that the world was going through a turbulence in which theories of chaos and uncertainty have become part of education; and all agreed as well that all that is truly living evolves and changes - why not education for sustainable development?

Joseph BARRY
in Toronto

ENVIRONMENTAL EDUCATION ON DISPLAY

UNESCO staged a striking exhibition - composed of illustrative panels the same as at Rio - on the Organization's role in education, science and culture for environment and development. A table-top display of environmental education (EE) modules, curricula, guide-books, etc., produced by the UNESCO-UNEP International EE Programme and offered free either directly at the ECO-ED World Congress or by writing to the IEEP at UNESCO, was also presented. There were additional colourfully illustrated materials on science and environment for sale at low prices, similarly available by writing to UNESCO. All centered on one or more aspects of education for sustainable development.

● **UNESCO HAS LAUNCHED AN INTERNATIONAL ALERT** for the head of a 13th century Cambodian statue, stolen from Banteay Mean Rith. The head is of the Bodhisattva Avalokitesvar, in the Bayon style, and was cut from the 1.8 metre statue by thieves last February.



(Photo Supreme National Council of Cambodia).

Cambodian authorities believe the head has already been sold and may appear on the world market. UNESCO has thus appealed to museums, antique dealers and art collectors, as well as police and customs officials to be on the look-out. Any information should be transmitted to the Supreme National Council of Cambodia, Royal Palace, Pavilion Sohametrey, Phnom Penh (Cambodia).

▼ **An EARTHQUAKE MONITORING NETWORK FOR EGYPT**

aimed at long-term mitigation of seismic risks will be prepared by a UNESCO technical mission leaving for Egypt in mid-November. An earlier mission visited the country in late October to assess damage to historic and cultural monuments and sites by the earthquake which hit Cairo on October 12. The Organization has allocated \$80,000 to reinforce UNESCO's action which, in addition to the network, includes the setting up of a Centre for earthquake risk reduction.

WHOSE HUMAN GENOME?

Research is rapidly moving ahead. But who will reap the benefits?

• *"UNESCO can and should be a place where all the world's peoples meet calmly, to discuss their differences." Thus declared Julius Nyerere, former President of Tanzania at Headquarters on October 21 upon receiving the 1992 INTERNATIONAL SIMON BOLIVAR PRIZE. He shared the \$25,000 biennial award with Mrs. Aung San Suu Kyi, Myanmar opposition leader and Nobel Peace laureate, who remains under house arrest. She was represented by close friend, Mrs. Ma Than E, who said "We wait with impatience for the day and the hour when the world community can acclaim and applaud those in power for granting her unconditional freedom so she can take her rightful place in the affairs of her country".*



MA THAN E (LEFT), FOR AUNG SAN SUU KYI (PHOTO), AND J. NYERERE (Photo UNESCO/Michel Claude).

▼ **OUTER SPACE** in the service of development was the theme debated at an inter-agency meeting at Headquarters from October 5-7, organized as part of International Space Year (1992). The participants discussed the practical applications of space technology, such as communications, meteorology, navigation and disaster management, and remote sensing, and expressed concern that developing countries could not make full use of satellite data because they lacked trained personnel. UNESCO has proposed the establishment of satellite data centres that would provide data analyses to developing countries for better planning and management of their natural resources.

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• Application by the U.S. National Institute of Health (NIH) for patents on thousands of fragments of genetic material (partial DNA sequences) is causing deep concern in the international scientific community, even though the U.S. Patent Office rejected the request.

• By seeking to "patent" knowledge acquired on naturally occurring DNA sequences, the NIH aims at obtaining property rights to all subsequent developments and applications, even though the Institute has not yet studied the reality of the data transcribed or experimentally documented applications. Since some of these discoveries, in fact, will make it possible to cure or prevent genetic diseases and defects, vast sums of money are sure to be involved.

• Reacting against this and similar moves in the future, a French research programme, Genexpress, which itself has made great advances in unlocking the secrets of the human genome, has turned to UNESCO.

OUR COMMON HERITAGE

• Dr. Charles Auffray, Scientific Director of the programme, met on October 28 with Director-General Federico Mayor, and launched an appeal, which has already been signed by many scientists. The declaration states that "all basic information derived from study of the genomes of human, animals, plants and other model organisms are part of our scientific heritage". It proposes that this data "be made accessible to the entire scientific community", and calls upon "UNESCO to protect this data against the dangers of monopolization, for the benefit of all."

• At the same time, Dr. Auffray made a symbolic presentation to UNESCO of research results obtained through the Genexpress programme. This data has been made accessible to scientists worldwide since last June, and is now available through UNESCO free of charge.

• "What we propose," Dr. Auffray told Sources, "is that serious consideration be given to protecting data derived from human genome analysis as part of our common heritage" - a new concept for UNESCO since, up until now, the notion of "World Heritage" has applied only to cultural and natural sites.

• "The NIH has tried to move the frontier between the actual discovery and its application," said the geneticist, "as though an astronomer could patent stars or a physicist elementary particles."

• "UNESCO is also in a good position to reinforce international cooperation in this area, by organizing exchange and transfer of knowledge, notably to the Third World," Dr. Auffray added.

• He also suggested that the Organization "intervene with governments and institutions to ensure that each country recognize and affirm that results of research on the genome be looked upon as part of our common heritage" and take the necessary legal steps to protect this principle.

• UNESCO should, moreover, play a role in the debate on ethics, notably by contributing to a "clarification of terms which maintain confusion". Heritage, genetic or hereditary, for example, could be interpreted as hereditary rights (thus commercial) to different parts of the human body.

• "Even the term 'human genome' should be used with caution," because, he said, "some people think that by understanding the genome we will understand ourselves. But the genome is only a molecule. What determines an individual is culture, social relationships, history, etc. certainly more than just molecules."

N.M.

A ROPE LADDER

Each human cell is composed of a nucleus containing 23 pairs of chromosomes. Each chromosome is formed of two minute filaments of deoxyribo-nucleic acid (DNA). DNA is a kind of rope ladder whose rungs form bases. DNA contains about 3,000 million base-pairs. Like letters, these can regroup to form words: genes. One speaks of DNA sequences. Each individual possesses about 100,000 genes which determine everything from eye colour to shape of the nose. The total of these genes form the human genome. If one gene is deteriorated, it can cause a genetic illness.

BOOKS OR BULLETS

UNESCO launches an emergency education programme in Somalia.

In Somalia, hundreds of children die of starvation every day - the result of the war started in 1989, which has laid the country to waste.

The most urgent task at hand is to get food to these people. Of course, the whole of the United Nations family is working to this end, but to achieve any measure of success requires a minimum of security.

One possible pole of stability in the reigning chaos could be the school: a pole of stability for the adolescents today seduced by their Kalashnikovs and drifting between banditry and drug abuse; or for village communities that, with external help, could be reunited by a collective project that would help repair the country's badly torn social fabric.

Finally, in the longer term, and as the causes of this war are strictly internal, the reconstruction of Somalia is inconceivable without the reconciliation of all the Somali people. Thus a new education system will be required that also aims at building a new sense of citizenship.

"Educational services and infrastructure, everywhere and on every level, have vanished as a result of conflict, vandalism or negligence," stressed the expert mission sent to Somalia by UNESCO from September 21 to October 1.

The situation before the war was certainly far from satisfactory, with, at best, some 3,000 teachers and about 300,000 students for a population of eight million. Barely one third of primary school age children attended classes.

NO SCHOOLS AT ALL

Now, however, "there are simply no schools at all," the mission reports. In Mogadishu, for example, not one of the 85 schools that existed before the war, are intact. Twenty-four could be restored, which means they need new roofs, doors, windows and furniture - at the very least.

The United Nations has just launched its "100-day plan" for Somalia, of which one of the aims is "the reconstruction of civil society".

Working in tandem with this project, and using the same time frame, UNESCO plans to set up "two islands of education for peace" in Mogadishu and Bossaso in the north of the country, where a minimum

of security can be ensured. In the short term, these pilot centres will provide primary education and a non-formal literacy programme including life skills. UNESCO has already freed up \$400,000



WHEN WILL EDUCATION HELP SOMALI CHILDREN BE BETTER ARMED FOR LIVING?
(Photo UNICEF/Roger Lemoyne).

for the operation, which has an overall budget of two million dollars.

Five specialists from the Organization were sent to Somalia at the end of October to get the project underway. The programmes offered will be based on a mix of old Somali language texts supplemented by new materials on civics, including family life and peace through mutual understanding.

Ex-teachers will be sought out, given refresher courses and paid a modest monthly salary as well as receiving a supply of food, while children will be provided with school lunches.

In its second phase, and depending on the security situation, the project will be extended to rural regions, thus strengthening the foundations of a new educational system and perhaps assuring a tomorrow for those that emergency food aid has saved today.

René LEFORT

THE REPUBLIC OF GEORGIA has become UNESCO's 171st Member State. Its membership to the Organization became effective on October 7 with the signing of UNESCO's Constitution and ratification agreements.

EDUCATION, STRUCTURAL ADJUSTMENT AND INTERNATIONAL COOPERATION

was the theme of a meeting of experts at UNESCO from September 21 to 24. While admitting that most countries need to adjust their economies to changing economic conditions, participants said investment in education was a necessary ingredient of economic restructuring and long-term development if properly planned and managed. The redefining of objectives, better use of available resources, greater autonomy for schools, and the strengthening of links between education and production, were, among others, identified as crucial areas for action. The experts agreed that some donors were imposing conditions on aid packages and giving greater support to specific projects as opposed to general capacity building, a practice they called "dangerous, as it not only creates islands of prosperity, but also helps increase donor dependency."

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UNESCO SOURCES is a monthly magazine published by the United Nations Educational, Scientific and Cultural Organization. English and French editions are produced at Paris Headquarters; the Spanish and Catalan editions in cooperation with the UNESCO Centre of Catalonia, Mallorca 285, 08037 Barcelona, Spain; the Portuguese edition with the UNESCO Centre in Porto, rua Jose Falcao, 100 R/C, 4000 Porto, Portugal.

Editor-in-Chief: R. Lefort. Associate editors: B. Werther, S. Williams, N. Michaux, C. Breuil. Assistant Managing Editor: C. Mouillere. Assistant (Spanish edition): C. Medrano. Layout: G. Traiano, F. Ryan. Circulation and Secretariat: D. Maarek.

Photoengraving and printing in UNESCO Workshops. Distribution by UNESCO's specialized services.

Publicity: Chloé Communication, Paris. Tel. (1) 43.26.40.66 Fax: (1) 43.54.82.21.

LOOKING AHEAD

"LANGUAGES AND CULTURES" is the theme of a conference at Headquarters from December 14 to 18. The programme will, notably, include a debate on the work of French philosopher and orientalist, Louis Massignon. Two other **CULTURAL EVENTS** are scheduled: a concert in the "American Classics" series, with the pianists Edson Elias of Brazil and Georges Rabel of Martinique, in collaboration with the Musicians International Mutual Aid Fund (MIMAF) on December 17; and the projection of prize-winning films presented at the 16th International Festival of **ART FILMS**, on January 9. A Seminar on the **ROLE OF WOMEN** for protection of the environment and the regeneration of culture, will be held in Penang (Malaysia) from December 14 to 17. The Consultative Committee on Steps to Promote the Full and Comprehensive Implementation of the 1974 Recommendation Concerning **EDUCATION FOR INTERNATIONAL UNDERSTANDING, CO-OPERATION AND PEACE** and Education Relating to Human Rights and Fundamental Freedoms, will hold its 4th session at Headquarters from December 14 to 17. The 3rd session of the **INTER-GOVERNMENTAL OCEANOGRAPHIC COMMISSION's** Regional Committee for the Co-operative Investigation in the North and Central Western Indian Ocean, will take place in Vacoas (Mauritius) from December 14 to 18. As part of the **GENERAL INFORMATION PROGRAMME**, an introductory course on structural methodologies will be given for the Arab States region, from January 11 to 19 in Cairo (Egypt). An International Symposium on **"MONTAIGNE TODAY: THE HUMANITIES AND SCIENTIFIC HUMANISM"** will be organized to mark the 400th anniversary of the writer's death, by the French National Commission for UNESCO January 14 and 15.

OUR NEXT ISSUE will focus on **DUBROVNIK**, World Heritage Site. Why, and how, is UNESCO working to save this ancient city from the conflict ravaging the countries and peoples of ex-Yugoslavia?